U.S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2004

PACIFIC OCEAN DIVISION

Budgetary information will not be released outside the Department of the Army until 3 February 2003

DEPARTMENT OF THE ARMY
FISCAL YEAR 2004

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SUMMARY PACIFIC OCEAN DIVISION

	FY 2003 Allocations $	FY 2004 Request $	Increase or Decrease $
General Investigations			
Survey	TBD	2,300,000	n/a
Preconstruction Engineering and Design	TBD	0	n/a
Subtotal General Investigations	TBD	(2,300,000)	n/a
Construction, General			
Construction	TBD	13,650,000	n/a
Operation and Maintenance, General			
Project Operation	TBD	3,179,000	n/a
Project Maintenance	TBD	7,421,000	n/a
Subtotal Operation and Maintenance	TBD	(10,600,000)	n/a
GRAND TOTAL, PACIFIC OCEAN DIVISION	TBD	26,550,000	n/a

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
1. SURVEYS - NEW					
1a. Navigation Studies: None					
1b. Flood Damage Prevention Studies: None.					
1c. Shoreline Protection Studies: None.					
1d. Special Studies: The amount of $100,000 is requested in Fiscal Year 2004 to initiate one reconnaissance study.					
Eklutna River Watershed, AK Alaska District	100,000	0	0	100,000	0

Eklutna is located at the head of the Knik Arm of Cook Inlet, at the mouth of the Eklutna River, within the boundaries of the Municipality of Anchorage. The watershed study will examine ways to mitigate the effects of the upper Eklutna Dam, removal of the lower Eklutna Dam and its effects, restoration of fish passage and wildlife habitat, and restoration an old railroad gravel quarry. On March 29, 2002 the Native Village of Eklutna requested assistance to address the problems within the watershed. This project will consider the need for both, restoration and enhancement of wildlife habitat areas and the reduction in water flow. The Native Village of Eklutna is the likely sponsor and has listed this project as a high priority. They are familiar with the cost sharing requirements for the feasibility phase study. FY04 funds will be used to initiate the reconnaissance phase and completion of the reconnaissance phase is to be determined. The reconnaissance report is scheduled for completion within 12 months after initiating the study.

The study authority is the River and Harbors in Alaska Resolution of the House Public Work Committee, adopted December 2, 1970.

1e. Comprehensive Studies: None.

1f. Project Review Studies: None.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEYS - CONTINUING					
2a. Navigation Studies: The amount of $1,700,000 is requested in Fiscal Year 2004 for 21 feasibility studies.					
Akutan Harbor, AK Alaska District	1,235,000	935,000	To be determined	100,000	To be determined

The city of Akutan lies on the north shore of Akutan Bay, a large, well-protected bay opening to the Bering Sea on the eastern side of Akutan Island. The city is about 40 miles east of Unalaska/Dutch Harbor (55 miles by boat). Akutan Island is approximately 590 miles southwest of Kodiak and 790 miles southwest of Anchorage. Protected moorage is needed for the fleet of commercial fishing vessels that use Akutan as a base of operations. Local residents report the most severe winds blow from the southeast/east and southwest directions and along the length of the bay throughout the fall and winter months. The eastern part of the bay can sustain waves of 8 feet or more during particularly severe easterly/southeasterly storms. Waves of 5 to 6 feet are common during major storms in the mid-bay vicinity off the Trident Seafood processing plant. The best and most sheltered location for a dock or small boat harbor facility is west of the Trident plant on the north side of the bay. During storms, vessels anchor in the head of the bay for protection, but still maintain a crew watch and often maintain power to prevent dragging their anchors. Vessels requiring storm protection include 76 crabbers and trawlers, ranging in size from 80 to 210 feet, and 19 smaller vessels and skiffs, ranging in size from 14 to 32 feet. Fish processing is the major industry attracting vessels to Akutan. The number and size of vessels requiring moorage would vary depending on the type of fishing in season at the time. The Aleutians East Borough is the sponsor for the feasibility study. The feasibility cost sharing agreement was signed on 10 March 1998. The borough is eager to complete the feasibility study and project construction.
Fiscal Year 2003 funds are being used to continue the feasibility study. Funds requested for Fiscal Year 2004 will be used to complete the feasibility study. The preliminary estimated cost of the feasibility phase is $2,470,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,470,000
Reconnaissance Phase (Federal)	N/A (Prepared under Coastal Navigation Parent Study)
Feasibility Phase (Federal)	$1,235,000
Feasibility Phase (Non-Federal)	$1,235,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Anchorage Harbor Deepening, AK Alaska District	1,263,000	242,000	To be determined	50,000	To be determined

Anchorage Harbor is the primary deep-water port for south-central Alaska, which contains two-thirds of the State's population, and is the hub of economic activity for the state. A sharp increase in the number and size of petroleum tankers serving the military and commercial tank farm operators delivering their cargo to Anchorage has occurred in recent years since the Department of Defense pipeline from Whittier ceased operation. Fuel is also delivered through the port to supply needs resulting from a sharp increase in air cargo activity at the Anchorage International Airport. There is increasing interest in the Port of Anchorage, with its many nearby attractions, as a cruise ship destination. Anchorage, as Alaska's largest metropolitan city, has certain inherent intrastate, interstate, national and international commerce responsibilities and activities. Nearly 80% of the goods for 90% of Alaska's population cross the docks at the Port of Anchorage. The Port of Anchorage is dredged annually to a depth of 35 feet below mean lower low water level by the Corps of Engineers. Significant delays have occurred when deeper draft vessels were unable to dock at the port because of limited available water depths. Some larger petroleum tankers arrive at high tide and quickly off load some of their cargo to reduce draft. The Knik Arm Shoal (Cook Inlet) navigation channel was completed in September 2000, allowing deeper draft and larger ships to call at the port with greater flexibility regarding tides. Deeper draft capability is needed in the dock approach channels and around the terminals to accommodate the vessel traffic. Transportation costs could be significantly reduced if the deeper vessels could call at the Port of Anchorage. Annual cargo throughput was about 3.7 million tons in 1999 and has increased about 8 percent per year since 1987. The Municipality of Anchorage intends to be the local sponsor as indicated in their June 1998 letter where they stated a willingness to share equally in the feasibility phase costs. An evaluation of potential benefits and costs for deepening the approaches to the Anchorage Port will be completed during the study. Numerical and/or physical models will be used to insure maintenance requirements are minimized. Several ships serving the Port of Anchorage are scheduled for replacement within the next 10 years; thus the feasibility study findings will be critical for decisions on the ship design to match the harbor depth while providing adequate safety clearance under the vessel.

Fiscal Year 2003 funds are being used to initiate the feasibility phase**,** pending certification of the reconnaissance report, availability of local sponsor funding and execution of the feasibility cost sharing agreement. Funds for Fiscal Year 2004 will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,263,000
Reconnaissance Phase (Federal)	263,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Local)	1,000,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Craig Harbor, AK Alaska District	630,000	100,000	To be determined	50,000	To be determined

Craig is a growing community on Prince of Wales Island in Southeast Alaska. Craig lies 56 air miles west of Ketchikan, and is 220 air miles south of Juneau, Alaska. Craig can only be reached by air and water; there are no roads connecting Craig with mainland Alaska. There are two existing small boat harbors. The Corps of Engineers completed the South Cove Harbor in 1983; the North Cove Harbor was completed by the City in 1993. These harbors, combined with a transient dock, have moorage for a total of 149 boats. It is estimated that over 70 percent of these boats are for commercial use. The economy of Craig is based largely on commercial fishing; salmon, shrimp, halibut, and crab are all commercially harvested near Craig. A fish buying station and a major cold storage plant are located in Craig, and service most of Prince of Wales Island. Growth has been due in part to the increased role of Craig as a service and transportation center for the Prince of Wales Island communities. As a result of this growth, the community has a wait list of over 100 commercial boats ranging from 28 to 60 feet in size which need permanent mooring space. Overcrowding is common during the summer commercial fishing season; rafted vessels experience damage, as do the float system. Craig is forced to turn away boats because of a lack of even transient moorage being available in the summer months. Also, the North Cove Harbor has virtually no wave protection on the western side, which means the existing boats and floats receive damage from the prevailing westerly winds during storms. The economy of Craig is dependent upon waterborne commerce; the lack of space in the harbor is limiting Craig's ability to service the fisherman who would like to use Craig as a home port. This study will consider the benefits and costs for an expanded and better protected small boat harbor for the current and projected fleet. The City of Craig is the likely sponsor and has listed this project as a high priority. They are familiar with the cost sharing requirements for the feasibility study.

Fiscal Year 2003 funds are being used to complete the reconnaissance study and negotiate the feasibility cost sharing agreement with the local sponsor. Fiscal Year 2004 funds will be used to initiate the feasibility phase pending certification of the reconnaissance study, availability of local sponsor funding and execution of the feasibility cost sharing agreement. The preliminary estimated cost of the feasibility phase is $1,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing follows:

Total Estimated Study Cost	$1,130,000
Reconnaissance Phase	130,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Local)	500,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
DeLong Mountain Regional Port, AK Alaska District	4,400,000	3,596,000	To be determined	200,000	To be determined

The DeLong Mountain Regional Port is located in northwestern Alaska about 650 miles northwest of Anchorage. It currently serves the world class Red Dog zinc mining operation and could serve as a regional hub for distribution of fuel to several communities in the region. The Alaska Industrial Development and Export Authority (AIDEA) and the Northwest Arctic Borough are interested in expanding the terminal for efficiency in ore loading, general use by communities in this area, and future distribution of fuel. Expansion of the port could reduce lightering costs, which are approximately $20 million per year. Shallow draft barges currently carry the ore concentrate to large ore carriers that anchor several miles offshore.

Navigation improvements that are desired include dredging a deep draft channel and maneuvering area for a new direct load facility connected to shore by a trestle. The estimated dredging cost is $30 to $50 million. Potential benefits from the navigation improvements include significant reduction in transportation costs for zinc and lead concentrate, reduced costs of dry goods arriving at the port, savings in fuel transportation costs to the mine and communities in the region, and the enhanced feasibility of coal export and other metal mines in the region. AIDEA, the project sponsor, has listed this project as high priority.

Fiscal Year 2003 funds are being used to continue work on the feasibility study. Fiscal Year 2004 funds will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $8,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$8,800,000
Reconnaissance Phase (Federal)	N/A (Prepared under Coastal Navigation, AK parent study)
Feasibility Phase (Federal)	4,400,000
Feasibility Phase (Local)	4,400,000

The reconnaissance phase was prepared under the Coastal Navigation Improvements Study and was completed in January 2000. Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Haines Harbor, AK Alaska District	463,000	248,000	To be determined	100,000	To be determined

Haines is a small community located at the northern end of Lynn Canal. The community is 90 miles northwest of Juneau. The city desires expansion of the existing Haines Small Boat Harbor. The harbor is used by local and transient fishermen primarily employed in halibut and gillnet salmon fishing. The 200 vessel capacity harbor is also home to resident recreational craft. Haines is an important link in the Alaska marine highway system. It is located at the southern end of the Haines Highway, linking southeastern Alaska by road with interior Alaska, the south-central region, and the Yukon Territory. The existing harbor was expanded in 1976. The seaward leg of the existing breakwater was removed, and the basin was dredged in a stepped fashion to -12 feet and –14 feet MLLW. The entrance channel was dredged to –15 feet MLLW. The study will consider the benefits and costs for enlarging the mooring area to accommodate the current and projected fleet, or to construct another harbor along the waterfront to meet the moorage demand. The addition to moorage space will do much to cut the costs due to crowding and delays. Costs of transporting fresh halibut and salmon to market will be significantly reduced resulting in transportation savings of more than a million dollars per year. The Borough of Haines would be the local sponsor and they understand the cost sharing that would be needed for a feasibility study.

Fiscal Year 2003 funds will be used to continue the feasibility study. Fiscal Year 2004 funds will be used to complete the feasibility study and continue negotiation of the PED agreement. The preliminary estimated cost of the feasibility phase is $926,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing follows:

Total Estimated Study Cost	$926,000	
Reconnaissance Phase	N/A	(Completed under Section 107)
Feasibility Phase (Federal)	463,000	
Feasibility Phase (Local)	463,000	

Completion of the feasibility phase is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Ketchikan Navigation Improvements, AK Alaska District	627,000	107,000	To be determined	50,000	To be determined

Ketchikan is located in southeastern Alaska, approximately 600 miles from Anchorage. Ketchikan is the major distribution and transportation center for the southern half of southeastern Alaska. The borough population is about 15,000 persons. The Ketchikan Gateway Borough has five public harbors. The Bar Point Harbor, Thomas Basin, and City Float harbor are located in the city of Ketchikan. These three harbors account for approximately 90 percent of the total harbor space, and have a total design capacity of 812 permanent moorage spaces. In addition to permanent moorage, space is available for approximately 95 transient vessels. The other two public harbors, Knudson Cove, 19 km (12 miles) north of Ketchikan, and Hole–in-the-Wall, 11 km (7 miles) south of Ketchikan, have a total design capacity of 71 spaces. All five harbors combined have 978 permanent and transient spaces available. In addition, the Mountain Point breakwater and launch ramp allows trailered vessels to be launched at a site 10 km (6 miles) south of Ketchikan. There are another 200 moorage spaces located in various private harbors within the Ketchikan/Saxman area. Many of these harbor facilities are in close proximity to large cruise ship operations. Conflicts between the two uses are frequent. This study will evaluate the damages due to overcrowding, cost of delays, and high operating costs for commercial fishing vessels and cruise ships in the Ketchikan area. The wait list for the Ketchikan area has increased to 300 vessels. This study will identify the problems and opportunities for commercial navigation in Ketchikan and determine if navigation improvements in Ketchikan are warranted. The Ketchikan Gateway Borough is the likely sponsor. They are familiar with the cost sharing requirements for the feasibility study. The reconnaissance report was completed in April 2001.

Fiscal Year 2003 funds are being used to initiate the feasibility study**,** pending availability of local sponsor funding and execution of the feasibility cost sharing agreement. Funding in Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $1,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing follows:

Total Estimated Study Cost	$1,127,000
Reconnaissance Phase	127,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Local)	500,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Kotzebue Harbor, AK Alaska District	560,000	129,000	To be determined	50,000	To be determined

The City of Kotzebue is located on the northwest coast of the Baldwin Peninsula in Kotzebue Sound on the Chukchi Sea above the Arctic Circle. The city is 549 miles northeast of Anchorage and can be reached only by air and by sea. Nearly all supplies arrive by water between June and September. These shipments are transferred from ocean going vessels to shallow draft lightering barges for the 13 mile trip to port. Barges drawing no more than 7 feet of water are used because the tremendous volumes of sediment deposited in the Kotzebue Sound frequently create shoaling problems. A Reconnaissance report was completed in 1981 under the authority of Section 107 of the River and Harbor Act of 1960, as amended, which concluded that a navigation channel could be constructed to reduce shipping costs. Today Kotzebue is the service and transportation hub for all villages in the northwest region. Commercial fishing of chum salmon and trout, and processing at Kotzebue Sound Area Fisheries provide seasonal employment and 140 resident have commercial fishing permits. Most residents rely on subsistence to supplement income. Kotzebue is the center for subsistence salmon and sheefish fishing during the summer. Small craft from villages along the Chukchi Sea and upriver on the Kobuk and Noatak Rivers come to Kotzebue for fish processing. The State of Alaska is improving shore protection along Shore Avenue, which will remove much of the available beach area used for vessel loading, staging, and itinerant parking. The City of Kotzebue is the non-federal sponsor and is interested in developing alternative locations to harbor and service these small vessels. The reconnaissance report was completed in November 2002.

Fiscal Year 2003 funds are being used to initiate the feasibility phase, pending certification of the reconnaissance study, availability of local sponsor funding and execution of the feasibility cost sharing agreement. Fiscal Year 2004 funds will be used to continue the feasibility study including engineering, economic and environmental analyses of needed navigation improvements. The preliminary estimate cost of the feasibility phase is $800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$960,000
Reconnaissance Phase (Federal)	160,000
Feasibility Phase (Federal)	400,000
Feasibility Phase (non-Federal)	400,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Little Diomede, AK Alaska District	950,000	102,000	To be determined	50,000	To be determined

The City of Diomede lies on the west coast of Little Diomede Island, 2.5 miles from Big Diomede Island, Russia. The two Diomede islands lie in the center of the Bering Straits, 135 miles northwest of Nome. Access to Diomede is limited to weekly helicopter service during the summer open water periods and intermittent fixed wing aircraft during the winter, which is dependent upon construction of an ice runway. Both types of service are very weather dependent. Service is also very limited in the size and type of goods that can be shipped. Little Diomede has no protected harbor, and regular freight barges have ceased delivering cargo because of the high risk of barge damage and weather delays. Some independent barge operators will go to Little Diomede for premium fees. New construction, equipment, major repairs to infrastructure, and even replacement of household appliances are being impacted and delayed because of increased transportation costs. During some winters, an ice runway can be built on the sea ice for fixed wing aircraft, which can deliver some larger items, but at exorbitant costs. A harbor would greatly reduce the cost of goods and increase access to the village. Potential cost share sponsors for the feasibility study include the City of Diomede, Kawerak, Inc. (regional non-profit tribal corporation), and the State of Alaska.

Fiscal Year 2003 funds are being used to initiate feasibility phase, pending availability of local sponsor funding and execution of the feasibility cost sharing agreement. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $1,600,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$1,750,000
Reconnaissance Phase (Federal)	150,000
Feasibility Phase (Federal)	800,000
Feasibility Phase (non-Federal)	800,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Mekoryuk Harbor, AK Alaska District	575,000	153,000	To be determined	50,000	To be determined

Mekoryuk is a small community on Nunivak Island, which is located 30 miles off the western coast of Alaska in the Bering Sea. Nunivak Island has numerous coves, which are naturally deep, unlike most of western Alaska, which is characterized by sandy, shallow shoals along the coastline. The Corps of Engineers constructed a 510-foot breakwater in 1986. The breakwater protects an inter-tidal moorage area of 1.2 acres. There are now 55 boats, which want to use the harbor, but there is not adequate space or depth. The existing harbor is inter-tidal and requires a plus tide of 8 feet before boats can enter or leave, resulting in delays of up to six hours. This reduces the time available for commercial and subsistence fishing. In addition, the breakwater does not provide protection against storm waves that come from the southeast to south. Also, barges that deliver fuel and cargo are often damaged because the bay is strewn with boulders of varying size. The proposed study will consider benefits and costs for expansion or development of a new small boat harbor at Mekoryuk, along with improvements to the barge-landing site.

The City of Mekoryuk is the potential sponsor and has listed this project as a high priority. They are familiar with the cost sharing requirements for the feasibility study. The Native Village of Mekoryuk and Nunivak Island Mekoryuk Alaska (NIMA) Native Corporation support this project. The reconnaissance report was completed in July 2002.

Fiscal Year 2003 funds are being used to initiate the feasibility phase, pending certification of the reconnaissance report, availability of local sponsor funding and execution of the feasibility cost sharing agreement. Fiscal Year 2004 funds will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is $800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing follows:

Total Estimated Study Cost	$975,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	400,000
Feasibility Phase (local)	400,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Port Lions Harbor, AK Alaska District	435,000	281,000	To be determined	100,000	To be determined

Port Lions Harbor is in Settler Cove, adjacent to the southeast coast of Kodiak Island, about 19 air miles west-northwest of the city of Kodiak, Alaska. The Corps of Engineers constructed a breakwater and entrance channel in 1981 to provide safe anchorage for the local fleet of fishing boats and transient vessels. The project consists of a 5-acre mooring basin behind a 600-foot breakwater and 170-foot stub breakwater. A winter storm in November 1981 severely damaged the main breakwater just 4 months after completion. Reconstruction in 1983 added 125 feet to the length of the main breakwater and strengthened it. The harbor design is for 125 vessels, but only about 35 vessels use the harbor year around, as the remaining portion still experiences damage during storms, and it is unsafe. Additional breakwaters are needed to provide adequate wave protection for the moorage area and to reduce damages to the vessels and the mooring system. Also, larger vessels with deeper drafts desire use of the harbor but must travel to other harbors, which greatly increases their operating costs. If the harbor had sufficient protection, commercial fishing vessels would occupy the majority of mooring berths not now usable. The Alaska Department of Transportation & Public Facilities is the local sponsor and signed the feasibility cost sharing agreement in January 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Fiscal Year 2004 funds will be used to complete the feasibility study. The preliminary estimated cost of the feasibility phase is $600,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$735,000
Reconnaissance Phase (Federal)	135,000
Feasibility Phase (Federal)	300,000
Feasibility Phase (Local)	300,000

Completion of the feasibility phase is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Saint George Navigation Improvements, AK Alaska District	1,174,000	117,000	To be determined	50,000	To be determined

The City of Saint George is located on Saint George Island, the second largest of the Pribilof Islands. The island is located in the middle of the Bering Sea, in the center of extensive bottom fish and crab fisheries. The harbor configuration was designed and built by the city. Previous Federal work on this harbor consisted of dredging the entrance and maneuvering channel under Section 107 authority in which project depth was not fully achieved. Following this work Congress authorized the entrance channel to be dredged to a 20-foot depth. A decision document for that work is being prepared.

Large waves are entering the entrance and inner harbor area making ingress/egress into the harbor almost impossible during moderate wave conditions. Harbor users are reluctant to enter the harbor or proceed with off loading operations. The feasibility study will look at ways to reduce wave action in the inner harbor but more importantly create a safe entrance channel wave environment into the harbor. This may result in a different harbor configuration or the possibility of developing a harbor at a different location. The City of Saint George supports the project and is the non-federal sponsor. The reconnaissance report was completed in June 2002.

Fiscal Year 2003 funds are being used to initiate the feasibility phase, pending availability of local sponsor funding and execution of the feasibility cost sharing agreement. Funds requested for Fiscal Year 2004 will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,174,000
Reconnaissance Phase (Federal)	174,000
Feasibility Phase (Federal)	1,000,000
Initial Non-Federal Share	1,000,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Unalakleet Harbor, AK Alaska District	1,020,000	121,000	To be determined	50,000	To be determined

The city of Unalakleet is located on Norton Sound at the mouth of the Unalakleet River, 148 miles southeast of Nome and 395 miles northwest of Anchorage. Approximately 82 percent of the 800 people in Unalakleet are Alaska Natives. Unalakleet has a history of diverse cultures and trade activity. Both commercial fishing for herring and traditional Unaligmiut Eskimo activities are major components of Unalakleet's economy. Approximately 113 residents hold commercial fishing permits, and a new fish processing plant was recently completed. Presently, the fishing fleet, operating out of Unalakleet, uses a lagoon on the lee side of the spit on which the city is located. Vessels in the lagoon are able to moor, haul out, and access the fish processing facility. Access to the lagoon is difficult due to shoals and the shallow offshore channel of the river. The barges that deliver fuel and supplies to the city are returned to transit only during the highest tides. Groundings of even the small fishing boats cause delays that reduce the value of the fish delivered to the processing plant and reduces effective commercial and subsistence fishing opportunities. The study will consider the benefits and costs of constructing a navigation system that would significantly reduce delays and vessel damages. The City of Unalakleet and the tribal village of Unalakleet are the likely sponsors and are familiar with the cost sharing requirements for the feasibility study. The reconnaissance study was completed in August 2000.

Fiscal Year 2003 funds are being used to initiate the feasibility phase of the study, pending availability of local sponsor funding and execution of the feasibility cost sharing agreement. Fiscal Year 2004 funds will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $1,700,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Costs	$1,870,000
Reconnaissance Phase	170,000
Feasibility Phase (Federal)	$850,000
Feasibility Phase (Local)	$850,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Unalaska Harbor, AK Alaska District	1,800,000	861,000	To be determined	150,000	To be determined

Unalaska overlooks Iliuliuk Bay and Dutch Harbor on Unalaska Island in the Aleutian Chain. It lies 800 air miles from Anchorage and 1,700 miles northwest of Seattle. The name Dutch Harbor is often applied to the portion of the City on Amaknak Island, which is connected to Unalaska Island by a bridge. Dutch Harbor is actually within the boundaries of the City of Unalaska. Unalaska's economy is based on commercial fishing, fish processing, and fleet services such as fuel, repairs and maintenance, trade, and transportation. The community enjoys a strategic position as the center of a rich fishing area, and for transshipment of cargo between Pacific Rim trading partners. The Great Circle shipping route from major west coast ports to the Pacific Rim passes within 50 miles of Unalaska, and Dutch Harbor provides a natural protection for fishing vessels. Unalaska ranks as the number one port in the nation for seafood volume and value. Publicly owned marine facilities in the area do not adequately meet moorage needs at Unalaska. Additional harbor sites are being investigated. One proposed location in South Channel, Iliuliuk Bay, called "Little South America" could accommodate over 250 boats if fully developed. The proposed Little South America Harbor is located on the south end of Amaknak Island, which is remarkably similar in shape to the continent of South America. The harbor would be protected by stub rubblemound and floating breakwaters. The estimated project cost is $20 million and the benefit cost ratio is estimated at 1.3. The City of Unalaska is the sponsor for the project.

Fiscal Year 2003 funds are being used to prepare an Environmental Impact Statement and to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is $3,600,000, which is to be shared on a 50-50 basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows.

Total Estimated Study Cost	$3,600,000	
Reconnaissance Phase (Federal)	N/A	(Prepared under Coastal Navigation, AK, parent study)
Feasibility Phase (Federal)	1,800,000	
Feasibility Phase(Local)	1,800,000	

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Valdez Harbor, AK Alaska District	1,080,000	640,000	To be determined	50,000	To be determined

Valdez is located at the extreme northeastern end of Valdez Arm in Port Valdez, approximately 115 miles east of Anchorage. The Valdez port area is located near the head of the bay, with the town site occupying the uplands along the north shore. There is currently a lack of adequate moorage space at the small boat harbor. Rafting during the commercial fishing season has been reported up to eight boats deep on a regular basis. The problem is highly seasonal, requiring a large need for transient space primarily during the summer months. The current number of vessel owners waiting for a slip is 156. The waiting time is 5 to 8 years. The Alyeska Pipeline Service Company provides oil spill response support activities for marine areas in and adjacent to Valdez Arm through its SERVS dock. The dock's exposed location is not protected during adverse weather. SERVS vessels are often subject to severe weather, which can cause vessel damage and undesirable berthing conditions at the present facility. The City of Valdez supports the project and is serving as the non-federal sponsor.

Fiscal Year 2003 funds are being used to continue the feasibility study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is $1,960,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,060,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	$980,000
Feasibility Phase (Non-Federal)	$980,000

The reconnaissance phase was completed in June 1999. Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Whittier Breakwater, AK Alaska District	525,000	141,000	To be determined	50,000	To be determined

Whittier is located on the western end of Prince William Sound about 60 miles east of Anchorage. A new road tunnel to Whittier opened in June 2000 and offers Anchorage residents and visitors relatively good access to this top quality marine environment; the next closest access to a coastal area is twice as far away at Seward. Additional boat launch and harbor facilities are needed to accommodate the large number of people that will be traveling to Whittier. Breakwaters (750 foot main and 150 foot spur) would protect a dredged small boat harbor and a boat launch facility.

The existing Whittier Harbor is full and has a long wait list of vessels wanting moorage space. Expanding the existing harbor is not feasible because of railroad facilities that must be kept in operation on the landward side and deep water on the seaward side makes expansion too costly. The only other harbor site that has road access is at the head of Passage Canal where a boat launch and small harbor could be constructed. State and local interests strongly support additional harbor facilities and are willing to cost share harbor development.

Whittier is surrounded by towering mountains, which leave little flat land for development of onshore facilities for a boat harbor. Most of the people coming to Whittier from Anchorage will be interested in recreational boating or sport fishing, which is not a high national priority for computation of benefits to justify Federal involvement. Some of the visitors will want to take charter boats for fishing and viewing of the magnificent glaciers and mountains. Corps policy currently limits recreational benefits to 50 percent of the cost of the facilities. The Reconnaissance report was completed in June 2001.

Fiscal Year 2003 funds are being used to initiate the feasibility phase**,** pending availability of local sponsor funding and execution of the feasibility cost sharing agreement. Fiscal Year 2004 funds will be used to continue the feasibility study. The preliminary estimate cost of the feasibility phase is $700,000, which is to be shared on a 50-50 percent basis by Federal and non-federal interests. A summary of study cost sharing follows:

Total Estimated Study Cost	$875,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	350,000
Feasibility Phase (Local)	350,000

Completion of the feasibility phase is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Barbers Point Harbor Modification, Oahu, HI Honolulu District	1,567,000	1,[illegible],000	To be determined	100,000	To be determined

Barbers Point Harbor is located on the Ewa plains along the western coast of the Island of Oahu, Hawaii, and is situated adjacent to the 1,367-acre James Campbell Industrial Park (Oahu's major industrial area) and the 800-acre Kapolei Business Park. The harbor was originally intended to serve as a deepwater relief harbor for the port of Honolulu and to service the shipping requirements of the industries at Campbell Industrial Park, thus eliminating or reducing the need for considerable overland transshipment expense involved in importing and exporting via Honolulu Harbor and the congested Honolulu metropolitan area. However, the rapid development and growth of the Ewa plains region and the establishment of the community of Kapolei as Oahu's second urban center near Barbers Point have placed increased importance and demand on the harbor to service the growing communities, businesses, and industries in the Ewa area. The recommended plan, estimated to cost $31.0 million ($23.2 million Federal; $7.8 million non-Federal), is to deepen the entrance and access channels to -44 feet and also deepen the turning basin to -42 feet. The benefit-cost ratio is 1.01 to 1. The State of Hawaii supports the project and the Department of Transportation is the non-federal sponsor.

Fiscal Year 2003 funds are being used to complete the draft Supplemental Environmental Impact Statement (SEIS). Fiscal Year 2004 funds will be used to continue the feasibility studies and SEIS. The total estimated cost of the feasibility phase is $2,384,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests.

A summary of the study cost sharing follows:

Total Estimated Study Cost	$2,759,000
Reconnaissance Phase (Federal)	375,000
Feasibility Phase (Federal)	1,192,000
Feasibility Phase (Non-Federal)	1,192,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Kawaihae Deep Draft Harbor Modifications Hawaii, HI	$866,250	130,000	To be determined	100,000	To be determined

Honolulu District

Kawaihae Harbor is located on the northwest coast of the island of Hawaii, approximately 85 miles northwest from Hilo, the county seat of the island of Hawaii. The existing project was completed in July 1962 and enlarged in January 1973. The project consists of a 3,270-foot long, 40-foot deep entrance channel; a 1,450-foot wide, 35-foot deep harbor basin; and a 2,650-foot long rubblemound breakwater. The barge pier and approximately half of the transpacific pier are not usable due to increased surge activity within the harbor causing delays in the loading and unloading of cargo. The surge problem occurs especially during the winter months when the north to northwest swells dominate the wave spectrum. Additionally, the surge actions within the harbor have resulted in damage to the piers and vessels. If improvements to the harbor are not implemented, the State's existing infrastructure will continue to be damaged, resulting in costly repairs.The local sponsor, the State Department of Transportation, fully understands the cost sharing requirements of this study. The feasibility cost sharing agreement was executed in September 2002.

Fiscal Year 2003 funds are being used to initiate the feasibility study. Efforts will include initiation of an Environmental Impact Statement; conducting public and coping meetings; and conducting environmental and engineering baseline investigations. Fiscal Year 2004 funds will be used to continue feasibility study efforts. The total estimated cost of the feasibility phase is $1,532,500, which will be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing follows:

Total Estimated Study Cost	$1,632,500
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	766,250
Feasibility Phase (Non-Federal)	766,250

The completion date of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Nawiliwili Harbor Modifications Kauai, HI	$750,000	100,000	To be determined	100,000	To be determined

Honolulu District

Nawiliwili Harbor is located in Nawiliwili Bay on the southeast coast of the island of Kauai, approximately 93 nautical miles northwest of Oahu. Nawiliwili Bay is directly exposed to the prevailing northeast trade winds which frequently attain high velocities and result in high seas and swells. The existing federal project at Nawiliwili Harbor includes a 2,435-foot breakwater, a 2,400-foot long, 40-foot deep, S-shaped entrance channel with a minimum width of 600 feet, and a 35-foot deep harbor basin with a maximum width and length of 1,540 feet and 1,950 feet, respectively. Kauai's economy is boosted by the North American passenger cruise ship market, which has recently included the island of Kauai in its weekly scheduled tour. Based on the success of the foreign cruise vessels in the islands, the market is expected to increase by as much as 30-percent statewide. The State of Hawaii is currently pursuing plans to modify pier facilities at the harbor to address the demand. Among the navigational concerns raised by harbor pilots and users of Nawiliwili Harbor are harbor surge, size and depth of the harbor turning basin, and the configuration of the harbor channel. The safety concern currently is the navigability of "panamax" vessels which are 965 feet in length. As passenger cruise and other commercial vessel size and traffic increase to keep pace with Kauai's growing economy, concerns regarding these safety issues will continue to grow. Preliminary discussions with the local sponsor, the State Department of Transportation, indicate that navigation outputs are in accordance with Corps policy. The local sponsor fully understands the cost-sharing requirements of the study and is committed to active participation with the Corps. The reconnaissance study was completed in August 2002.

Fiscal Year 2003 funds are being used to initiate the feasibility study pending certification of the reconnaissance report, availability of local sponsor funding and execution of the feasibility cost sharing agreement. Fiscal Year 2004 funds will be used to continue the feasibility study. The total estimated cost of the feasibility phase is $1,300,000, which will be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing follows:

Total Estimated Study Cost	$1,400,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	650,000
Feasibility Phase (Non-Federal)	650,000

The completion date of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Rota Harbor Modifications, CNMI Honolulu District	900,000	0	To be determined	102,000	To be determined

Rota Harbor is located on the west coast of the island of Rota, Commonwealth of the Northern Mariana Islands (CNMI). The CNMI is comprised of a chain of 16 islands in the western Pacific approximately 3,700 miles west-southwest of Hawaii and 1,400 miles south of Tokyo, Japan. The island of Rota is located 53 miles south-southwest of the main island of Saipan and is approximately 11 miles long and averages about 4 miles in width.

The current harbor was constructed by the Corps of Engineers and completed in April 1985 under Section 107 of the River and Harbor Act of 1960, as amended. As an island community, Rota's population and economy are vitally linked to the shipment of goods into and out of Rota Harbor, the island's only commercial port. However, the existing harbor's size and configuration restricts larger sized vessels from calling on Rota Harbor and requires the transshipment of goods and material to and from Rota. The added cost of transshipment is estimated at $13 million annually. The Commonwealth Ports Authority, the local sponsor, fully understands the cost-sharing requirements of the project. The reconnaissance report was completed in October 2001 under the Navigation Improvements, CNMI study. Authority to conduct this study is provided under Section 444 of the Water Resources Development Act of 1996 (PL 104-303).

Fiscal Year 2003 funds are being used to initiate the feasibility phase of the study, pending availability of local sponsor funding and execution of the feasibility cost sharing agreement. Fiscal Year 2004 funds will be used to continue the feasibility study. The total estimated cost of the feasibility phase is $1,400,000, to be shared on a 50-50 percent basis by Federal and non-Federal interests. Section 1156 of P.L. 99-662 provides for a waiver of local cost-sharing requirements up to $200,000. A summary of cost sharing is as follows:

Total Estimated Study Cost	$1,400,000	
Reconnaissance Phase (Federal)	N/A	(Conducted under Navigation Improvements, CNMI study)
Feasibility Phase (Federal)	900,000	
Feasibility Phase (Non-Federal)	500,000	(Reflects $200,000 waiver under Sec 1156 of PL 99-662)

The completion date of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Tinian Harbor Modifications, CNMI Honolulu District	800,000	0	To be determined	102,000	To be determined

Tinian Harbor is located on the southwestern coast of the island of Tinian, Commonwealth of the Northern Mariana Islands (CNMI). The CNMI is comprised of a chain of 16 islands in the western Pacific approximately 3,700 miles west-southwest of Hawaii and 1,400 miles south of Tokyo, Japan. Tinian is located 3 miles south south-west of the main island of Saipan. Tinian is approximately 13 miles long and averages about 6 miles in width. The shoreline is formed predominantly by sea cliffs 20 to 100 feet high. Tinian Island is subject to storm waves associated with tropical storms and typhoons. Due to Tinian's proximity to the typhoon breeding grounds, the island is threatened year round with the passage of a developing typhoon and on occasion, one of full strength. Typhoons are defined as storms with sustained wind speeds equal to or greater than 64 knots, while tropical storms are defined as having sustained wind speeds between 34 and 63 knots. Severe typhoons have occurred nearly every month of the year, but are most common between July and December. Tinian Harbor was originally constructed during World War II. The age of the existing harbor's breakwater and successive typhoons during the last few years have contributed to the deterioration of the breakwater and reduced usability of the harbor. As the island of Tinian's only commercial port and primary facility for the import and export of goods and material, Tinian Harbor is vital to the island's economic and social welfare. The island of Tinian is experiencing a period of rapid growth and development. Existing plans call for the construction of several large resort hotels. To meet the increased and growing demand in the area, the Government of the CNMI has identified the need for navigation improvements to the existing harbor. The present harbor's condition and limitations results in increased transportation costs to shippers. The Commonwealth Ports Authority, the local sponsor, fully understands the cost-sharing requirements of the project. The reconnaissance report was completed in October 2001 under the Navigation Improvements, CNMI study. Authority to conduct this study is provided under Section 444 of the Water Resources Development Act of 1996 (PL 104-303).

Fiscal Year 2003 funds are being used to initiate the feasibility phase of the study pending availability of local sponsor funding and execution of the feasibility cost sharing agreement. Fiscal Year 2004 funds will be used to continue the feasibility study. The total estimated cost of the feasibility phase is $1,200,000, to be shared on a 50-50 percent basis by Federal and non-Federal interests. Section 1156 of P.L. 99-662 provides for a waiver of local cost-sharing requirements up to $200,000. A summary of cost sharing is as follows:

Total Estimated Study Cost	$1,200,000	
Reconnaissance Phase (Federal)	N/A	(Conducted under Navigation Improvements, CNMI study)
Feasibility Phase (Federal)	800,000	
Feasibility Phase (Non-Federal)	400,000	(Reflects $200,000 waiver under Sec 1156 of PL 99-662)

The completion date of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Tutuila Harbor, Tutuila Island, American Samoa	430,000	284,000	To be determined	46,000	To be determined

Honolulu District

A reconnaissance study was conducted under Western District Harbor, Tutuila Island, American Samoa, in Fiscal Year 1999 and initially focused on the potential development of a second commercial harbor within the Western District of Tutuila Island. Preliminary economic and cost data indicated that a harbor located within the Western District was not economically justified. However, potential federal and local sponsor interest was identified in a second commercial facility within Pago Pago Bay that will relieve congestion at the existing commercial harbor. The congestion is due to inadequate entrance channel, turning basin, and berthing space for the numerous fishing vessels that regularly visit American Samoa. Delays of one to three days have been experienced by vessels entering the existing harbor. The development of this second commercial facility would alleviate the congestion being experienced at Pago Pago Harbor, which is currently not a Federal harbor, but is important as the largest and only deep draft harbor in the territory.

The American Samoa government, the local sponsor, supports the development of a second commercial facility in Pago Pago Bay to include federal navigation features of an entrance channel and turning basin. Authority to conduct this study is provided under Section 444 of the Water Resources Development Act of 1996 (P.L. 104-303). Fiscal Year 2003 funds are being used to continue feasibility study efforts to include compilation of economic data, environmental studies, design efforts and public involvement.

Fiscal Year 2004 funds will be used to continue the feasibility report. The American Samoa government is fully aware of the cost sharing requirements for a feasibility study. The estimated cost of the feasibility phase is $460,000, to be shared on a 50-50 percent basis by Federal and non-Federal interests, Section 1156 of P.L. 99-662 provides for a waiver of local cost-sharing requirements up to $200,000. A summary of cost sharing is as follows:

Total Estimated Study Cost	$460,000	
Reconnaissance Phase (Federal)	N/A	(Conducted under Western District Harbor Study)
Feasibility Phase (Federal)	430,000	
Feasibility Phase (Non-Federal)	30,000	(Reflects $200,000 waiver under Sec 1156 of PL 99-662)

The completion date of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2b. Flood Damage Prevention Studies: The amount of $200,000 is requested in Fiscal Year 2004 for one feasibility study.					
Barrow Coastal Storm Damage Reduction, AK Alaska District	3,510,000	245,000	To be determined	200,000	To be determined

Barrow, the northernmost community in North America, is located on the Chukchi Sea coast, 10 miles south of Point Barrow from which it takes its name. It lies 725 air miles from Anchorage. Barrow is the economic center of the North Slope Borough and numerous businesses provide support services to oil fields. Marine and land transportation provide seasonal access. Presently, numerous public facilities are threatened by the continued loss of shoreline and narrowing of approximately 5,000 feet of beach, fronting the community. During the winter, near-shore pack ice prevents the formation of waves during severe storms; this in turn protects the shoreline that is composed of very fine, well-rounded sand. However, recent years have seen the pack ice remaining further offshore for longer periods of time thereby allowing severe storms to generate wind driven waves that cause massive erosion along the shoreline. If this trend continues, the threatened facilities at Barrow could be impacted within the next one to two years. Local officials also believe that sand-mining operations carried out by the Department of Defense during the 1950's through the 1970's have contributed to the existing shoreline erosion problems. Utilidors (heated below ground tunnels containing utility lines), roads, wastewater treatment facilities, and a 32-unit borough owned apartment building are among the public facilities threatened. Also, the Barrow solid waste landfill is threatened and poses a tremendous environmental threat to the marine environment due to the potentially hazardous nature of wastes placed in the landfill. Private facilities are also threatened and would incidentally benefit from a project. These include a gas station, a hotel, and numerous small shops. The study will consider the benefits and costs for protecting the shoreline, fronting the city and road out to the landfill. It will also evaluate the merits of flood damage reduction measures.

The reconnaissance report was completed in June 2001. Fiscal Year 2003 funds are being used to negotiate the feasibility study cost sharing agreement with the local sponsor and to initiate the feasibility phase studies**,** pending availability of local sponsor funding. Fiscal Year 2004 funds will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $6,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. The North Slope Borough will be the local sponsor, and it understands the cost sharing that would be needed for a feasibility study. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$6,760,000
Reconnaissance Phase (Federal)	260,000
Feasibility Phase (Federal)	3,250,000
Feasibility Phase (Local)	3,250,000

Completion of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2c. Shore Protection: The amount of $100,000 is requested in Fiscal Year 2004 for one feasibility study.					
Kihei Area Shore Protection, Maui, HI Honolulu District	805,000	201,000	To be determined	100,000	To be determined

The Kihei area is located on the southwestern coast of the island of Maui and has experienced significant shoreline erosion within the past 30 years. One of the most severely eroded beaches on Maui is a 5,500 foot-long segment from Kalama Park to the shoreline along the southern half of Halama Street in Kihei. Erosion in the adjacent areas has continued and the risk of damage to houses, the main coastal road and park facilities remain high during high wave events. Local studies have estimated that as much as one-third of the sandy shoreline of the island have experienced significant erosion. Since the economy of the State is tied very closely to the condition of the shoreline, there is considerable Congressional and local interest in protecting the shorelines. Authority to conduct this study is provided by Section 209 of the Rivers and Harbor act of 1962 (PL 87-874). The local sponsor is the County of Maui and is fully aware of the cost sharing requirements and committed to active participation. The reconnaissance study was completed in September 2002.

Fiscal Year 2003 funds are being used to initiate the feasibility phase of the study pending certification of the reconnaissance report, availability of local sponsor funding and execution of the feasibility cost sharing agreement. Fiscal year 2004 funds will be used to continue the feasibility study. The total estimated cost of the feasibility phase is $1,410,000, to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of cost sharing is as follows:

Total Estimated Study Cost	$1,510,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	705,000
Feasibility Phase (Non-Federal)	705,000

The completion date of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2d. Special Studies: The amount of $200,000 is requested in Fiscal Year 2004 for two feasibility studies.					
Honolulu District					
Ala Wai Canal, Oahu, HI Honolulu District	885,000	450,000	To be determined	100,000	To be determined

The Ala Wai Canal, located in the Waikiki area on the Island of Oahu, is a two-mile long man-made waterway constructed during the 1920's that has served as a collection and transmission point for discharged silt, pollutants and floodwaters from the Makiki, Manoa and Palolo drainage basins and surrounding areas of Waikiki. This drainage area encompasses a total land area of approximately 16.3 square miles and is considered to be the most densely populated area in the state. The two-mile long canal is approximately half a mile inland from Hawaii's major landmark and primary tourist destination Waikiki Beach. The 150-to 250-foot-wide canal was originally dredged to a depth of 25 feet. In recent years the accumulation of debris, especially at the confluence of the major stream tributaries of the Makiki and Manoa-Palolo Streams and the Ala Wai Canal, has resulted in depths of only one to two feet. With increased urbanization of the drainage basin, the potential flood risk to the Waikiki area has become a major concern to the local sponsor. During the passage of Hurricane Iniki in 1992, the Ala Wai Canal overtopped its bank near the McCully Bridge and caused some flooding of streets in the Waikiki area. Flood mitigation measures, including both non-structural and structural alternatives, will be addressed and investigated for potential implementation.

The Ala Wai Canal also serves as an important link between the freshwater ecosystems of the upper drainage basins and the marine environment along the coast. Endemic amphidromous species such as native gobies and shrimp that had once utilized the Ala Wai Canal as a migratory pathway from the mountains to the sea are nearly non-existent. The accumulation of silt and pollutants over the years has resulted in a steady decline in water quality and has affected water flow and circulation. The deterioration of water quality in the canal is evidenced by health warning signs posted by the State of Hawaii Department of Health relating to the consumption of fish and crab, murky waters, floating and submerged debris, stench, and the proliferation of non-native tilapia, one of the few fish species capable of surviving in this aquatic environment. This deterioration of water quality has adversely impacted traditional recreational and marine activities. The degradation of water quality in the canal has limited aquatic fauna to alien species capable of surviving in low dissolved oxygen-high sediment aquatic environments. According to a 1989 Hawaii Stream Assessment Survey, native species of gobies once present within the Ala Wai tributaries were no longer found in a recent Fish and Wildlife Survey of the upper Palolo Watershed. In a cooperative effort with Federal, State and local agencies, an effective comprehensive management and restoration plan will need to be implemented to restore aquatic habitat and biological diversity once present in the canal and upstream tributaries.

The feasibility cost sharing agreement was executed in April 2001 with the State Department of Land and Natural Resources. Fiscal Year 2003 funds are being used to continue feasibility study efforts, to include environmental, hydrologic, hydraulic and geotechnical engineering studies. Fiscal Year 2004 funds will be used to continue feasibility phase studies. The total estimated cost of the feasibility phase is $1,520,000, which is to be cost shared at 50 percent by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Total Estimated Study Cost	$1,645,000				
Reconnaissance Phase (Federal)	125,000				
Feasibility Phase (Federal)	760,000				
Feasibility Phase (Non-Federal)	760,000				

The completion date of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
Kahuku Watershed, HI Honolulu District	600,000	131,000	To be determined	100,000	To be determined

The Kahuku Area is located on the northeastern coast of the island of Oahu, State of Hawaii, between Kawela and Laie along Highway 83 and covers approximately 2.525 sq kilometers. There are significant opportunities in the Kahuku watershed area for ecosystem improvements combined with floodplain management measures. Kahuku has historically experienced repeated flooding and drainage problems. The most recent major storm occurred in March 1991 which caused substantial damage to the community which flooded the Campbell Wild Life Preserve (managed by the U.S. Fish and Wildlife Service (USFWS)), aquafarms, residences, schools, and businesses. Estimated losses from this event totaled $6.4 to $10.3 million. Several factors can be cited: (1) Ponding in the flat, low-lying developed areas on both sides of Kamehameha Highway due to lack of an adequate drainage system; (2) The formation of sand dunes at the channel mouths which prevent floodwaters from discharging into the ocean; and, (3) Land developments that may have impeded flows to the ocean. In addition, the USFWS is actively seeking to expand the wetlands and birdlife habitat, increasing the ecological value of the area and which simultaneously may provide upstream detention storage. The feasibility study will investigate and recommend improvements to address these problems.

Authority to conduct this study is provided under Section 209 of the Flood Control Act of 1962, Public Law 87-874. The Feasibility Cost Sharing Agreement was executed in December 2002. The State of Hawaii and the City and County of Honolulu equally share local co-sponsorship. Both agencies are fully aware of the cost sharing requirements of the project. Fiscal Year 2003 funds are being used to initiate the feasibility study. Fiscal Year 2004 funds will be used to continue the feasibility study. The total estimated cost of the feasibility phase is $1,000,000 and will be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of cost sharing is as follows:

Total Estimated Study Cost	$1,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Non-Federal)	500,000

The completion date of the feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

2e. Comprehensive Studies: None.

2f. Project Review Studies: None.

3. PRECONSTRUCTION ENGINEERING AND DESIGN - NEW

3a. Navigation: None

3b. Flood Control: None

3c. Shoreline Protection: None.

3d. Multiple Purpose Projects: None.

4. PRECONSTRUCTION ENGINEERING AND DESIGN - CONTINUING

4a. Navigation: None

4b. Flood Control: None

4c. Shoreline Protection: None

4d. Multiple Purpose Projects: None.

CONSTRUCTION, GENERAL: The amount of $13,650,000 is requested in Fiscal Year 2003 for four Navigation projects.

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Nome Harbor, Alaska (Continuing)

LOCATION: Nome is located on the southern coast of the Seward Peninsula in western Alaska. The city is approximately 863 km northwest of Anchorage and is the transport and commerce center for Northwest Alaska.
DESCRIPTION: The project consists of a new 1,070 meter-long entrance channel protected by a 910-meter long rubblemound breakwater and sediment collection basins. Extension of an existing causeway bridge to widen the tidal gap was added as a General Navigation Feature. The harbor would provide protected moorage for the existing 170 vessels as well as a fleet of 40 barges and transshipment vessels providing cargo service to the region.

AUTHORIZATION: Water Resource Development Act of 1999 as modified by PL 107-66, Energy and Water Development Appropriation for FY 2002

REMAINING BENEFIT-REMAINING COST RATIO: 1.6 to 1.0 at 6-7/8 percent.

TOTAL BENEFIT-COST RATIO: The current benefit to cost ratio is 1.6 to 1.0 at 6-7/8 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1.0 at 6-7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Chief of Engineers Report of 8 June 1999 and an amendment on 2 August 1999 at October 1998 price levels.

SUMMARIZED FINANCIAL DATA:

			STATUS (1 January 03)	Percent Complete	Completion Schedule
Estimated Appropriation Requirement (COE)		$34,500,000	Entire Project	0	To be determined
Estimated Appropriation Requirement (U.S. Coast Guard)		10,000			
Estimated Total Appropriation Requirement		34,510,000			
Future Non-Fed Reimbursement		2,332,000			
Estimated Federal Cost (Ultimate) (COE)		32,178,000			
Estimated Non-Fed Cost		8,890,000			
Cash Contributions	4,933,000				
Other	1,625,000				
Reimbursement	2,332,000				
Total Estimated Project		41,068,000			

		Accmltd % est. FED cost	PHYSICAL DATA	Main	Detached
Allocations to 30 September 2002	864,000		Breakwater length		
Conference Allowance for FY 2003	TBD		Entrance Channel		
Allocations for FY 2003	TBD		Width (m)	45.7 to 107	
Allocations thru 2003	TBD		Depth (m)	-3 to –6.7	
Allocations requested for FY 2004	6,000,000		Sediment bypass system (depth)	-6.7	
Programmed Balance to Complete after FY 2004	TBD		Dock approach channel (depth)	-6.7	
Unprogrammed Balance to Complete after 2004	0				

JUSTIFICATION: Nome, located on the Seward Peninsula in western Alaska, is a major transshipment point for Northwestern Alaska communities and is also developing a commercial crab and halibut fishery. Even under moderate seas, treacherous conditions can exist within the channel and entrance area due to the highly reflective sheet-pile lined channel, poor jetty configuration and inadequate channel depths. Barges and other vessels using the entrance area incur extensive damage when wave action causes them to impact the sheet-pile walls. Vessel impacts into the sheet pile have in turn necessitated millions of dollars worth of repairs approximately every decade. High dredging maintenance costs and potential toxic sediment disposal problems also exist with the existing project. The average annual benefits attributable to the project are current estimated at $3,608,000.

FISCAL YEAR 2004: The requested amount of $6,000,000 will be applied as follows:

Breakwaters and Seawalls	5,450,000
Engineering and Design	50,000
Construction Management	500,000
Total	6,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

	Payments during construction and reimbursements ($)	Annual operation, maintenance, and replacement costs ($)
Requirements of Local Cooperation Reimbursements Costs		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	1,625,000	
Pay 10 percent of the costs allocated to general navigation during construction.	3,307,000	
Pay 25 percent of the costs allocated to deep draft navigation features during construction.	1,626,000	
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction is partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations. and dredged or excavated material disposal areas provided for commercial navigation.	2,332,000	
Total Non-Federal Costs	8,890,000	0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs over a period not to exceed thirty years.

STATUS OF LOCAL COOPERATION: The City Council of Nome, Alaska, has agreed to meet all requirements of local cooperation. The Project Cooperation Agreement was executed on 28 May 2002.

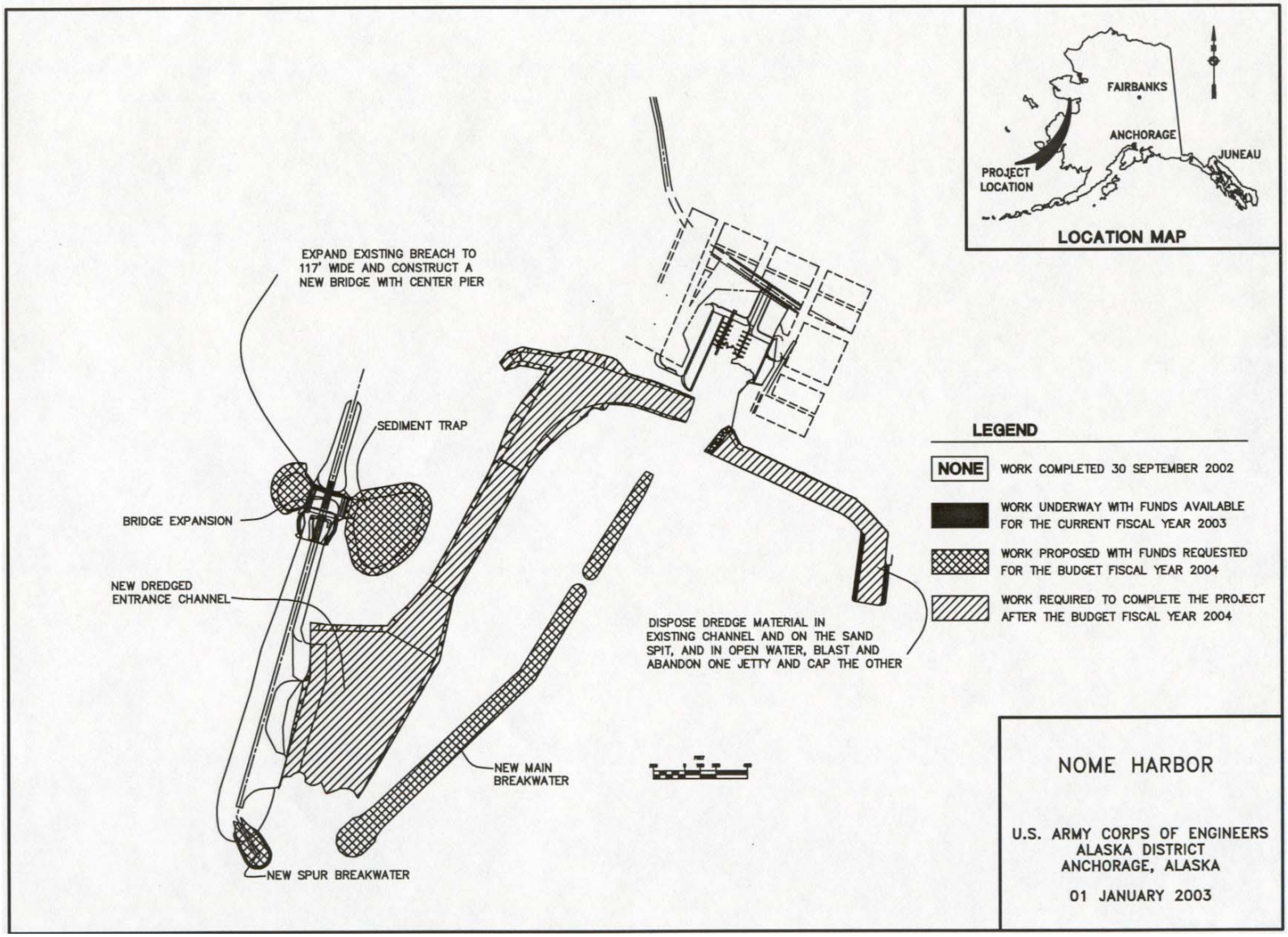
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) Cost Estimate of $34,500,000 is an increase of $959,000 over the last estimate ($33,541,000) presented to Congress in (FY 2003).

Item	Amount
Price Escalation on Construction Features	$ 959,000
Total	$ 959,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT AND COMPLIANCE WITH CLEAN WATER ACT:

The FONSI was signed on 30 June 1998.
The provisions of Section 404 of the Clean Water Act were met with the submission of the Environmental Assessment including a Section 404 (b)(1) evaluation to Congress in June 1998.

OTHER INFORMATION: Initial planning funds (PED) were received in FY 1999 and initial construction funds in FY 2001. Local service facilities estimated to cost $317,000 are also required for the project.


FAIRBANKS
ANCHORAGE
JUNEAU
PROJECT LOCATION
LOCATION MAP
EXPAND EXISTING BREACH TO 117' WIDE AND CONSTRUCT A NEW BRIDGE WITH CENTER PIER
SEDIMENT TRAP
BRIDGE EXPANSION
NEW DREDGED ENTRANCE CHANNEL
NEW MAIN BREAKWATER
NEW SPUR BREAKWATER
DISPOSE DREDGE MATERIAL IN EXISTING CHANNEL AND ON THE SAND SPIT, AND IN OPEN WATER, BLAST AND ABANDON ONE JETTY AND CAP THE OTHER
LEGEND
NONE
WORK COMPLETED 30 SEPTEMBER 2002
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2003
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2004
NOME HARBOR
U.S. ARMY CORPS OF ENGINEERS
ALASKA DISTRICT
ANCHORAGE, ALASKA
01 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Saint Paul Harbor, Alaska (Continuing)

LOCATION: Saint Paul is the northernmost of the Pribilof Islands, located in the southeastern Bering Sea approximately 800 air miles west southwest of Anchorage.

DESCRIPTION: The project consists of a dredged entrance channel at -32 feet MLLW, a maneuvering basin at -29 feet MLLW, a spending beach on the lee side of the existing detached breakwater, three offshore reefs parallel to the existing main breakwater, an environmental restoration feature to increase the flow of water into the Salt Lagoon and a small boat harbor with an entrance channel and maneuvering area dredged to a 20-foot depth and a small breakwater. The harbor improvements will accommodate increased boat and ship traffic and reduce damage to facilities and vessels from storm waves overtopping the existing main breakwater.

AUTHORIZATION: Water Resource Development Act of 1996 as modified by Section 303 of the Water Resources Development Act of 1999

REMAINING BENEFIT-REMAINING COST RATIO: 1.7 to 1.0 at 7-1/8 percent.

TOTAL BENEFIT-COST RATIO: The current benefit to cost ratio is 1.7 to 1.0 at 7-1/8 percent.

INITIAL BENEFIT-COST RATIO: 1.7 to 1.0 at 7-3/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Chief of Engineers Report of 23 December 1996 at October 1996 price levels.

SUMMARIZED FINANCIAL DATA:

			STATUS (1 January 03)	Percent Complete	Completion Schedule
Estimated Appropriation Requirement (CofE)		$ 50,558,000			
Estimated Appropriation Requirement (U.S. Coast Guard)		10,000	Entire Project	24%	To be Determined
Estimated Total Appropriation Requirement		50,568,000			
Future Non-Fed Reimbursement		5,731,000			
Estimated Federal Cost (Ultimate) (CofE)		44,837,000			
Estimated Non-Fed Cost		13,083,000			
Cash Contributions	$ 7,297,000				
Other	55,000				
Reimbursement	5,731,000				
Total Estimated Project		$57,920,000			

		ACCUMULATED % OF EST FED COST			
Allocations to 30 September 2002	$12,214,000	24%	PHYSICAL DATA	Main	Detached
Conference Allowance for FY 2003	TBD		Breakwater Length (ft)	1,800	970
Allocations for FY 2003	TBD		Entrance Channel		
Allocations thru 2003	TBD		Width (ft)	150	
Allocations requested for FY 2004	3,826,000		Depth (ft)	-32	
			Offshore Reefs Length (ft)	1,250	
Programmed Balance to Complete after FY 2004	TBD		Crest Elevation (ft)	-12	
			Maneuvering Basin		
Unprogrammed Balance to Complete after 2004			Total Area MLLW Depth	-29 Acres	
	11.0				

JUSTIFICATION: The city of Saint Paul is situated on the southwestern end of Saint Paul Island in the eastern Bering Sea. It is an active and growing island port whose economy is heavily dependent on commercial fishing. Storm waves overtopping and transmitting through the main breakwater create hazardous conditions and damage vessels and facilities in a harbor which serves a fishing fleet 3 times greater than that for which it was designed. The maneuvering area is inadequate for the increased numbers of vessels that are much larger than the original design vessel and harbor operations have changed significantly since initial construction. The proposed improvements would provide reduction in storm wave damages, increased efficiencies in harbor operations, and increased economies in transporting processed product. The average annual navigation benefits attributable to the project are currently estimated at $2,613,000.

FISCAL YEAR 2004: The requested amount of $3,826,000 will be applied as follows:

Award Channels and Canals	3,500,000
Continue Engineering and Design	26,000
Continue Construction Management	300,000
Total	$ 3,826,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 55,000	
Pay 10 percent of the costs allocated to general navigation features during construction.	$ 600,000	
Pay 25 percent of the costs allocated to general navigation features during construction limited to	$6,697,000 $6,697,000.	
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction is partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged or excavated material disposal areas provided for commercial navigation.	$5,731,000	
Total Non-Federal Costs	$13,083,000	$ 0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs over a period not to exceed thirty years.

STATUS OF LOCAL COOPERATION: The City Council of St Paul, Alaska, has agreed to meet all requirements of local cooperation. The Project Cooperation Agreement was signed in November 1998. A modification to the Project Cooperation Agreement will be executed in October 2003 to include the small boat harbor.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) Cost Estimate of $50,558,000 reflects an increase of $14,854,000 to the last estimate ($35,704,000) presented to Congress (FY 2003).

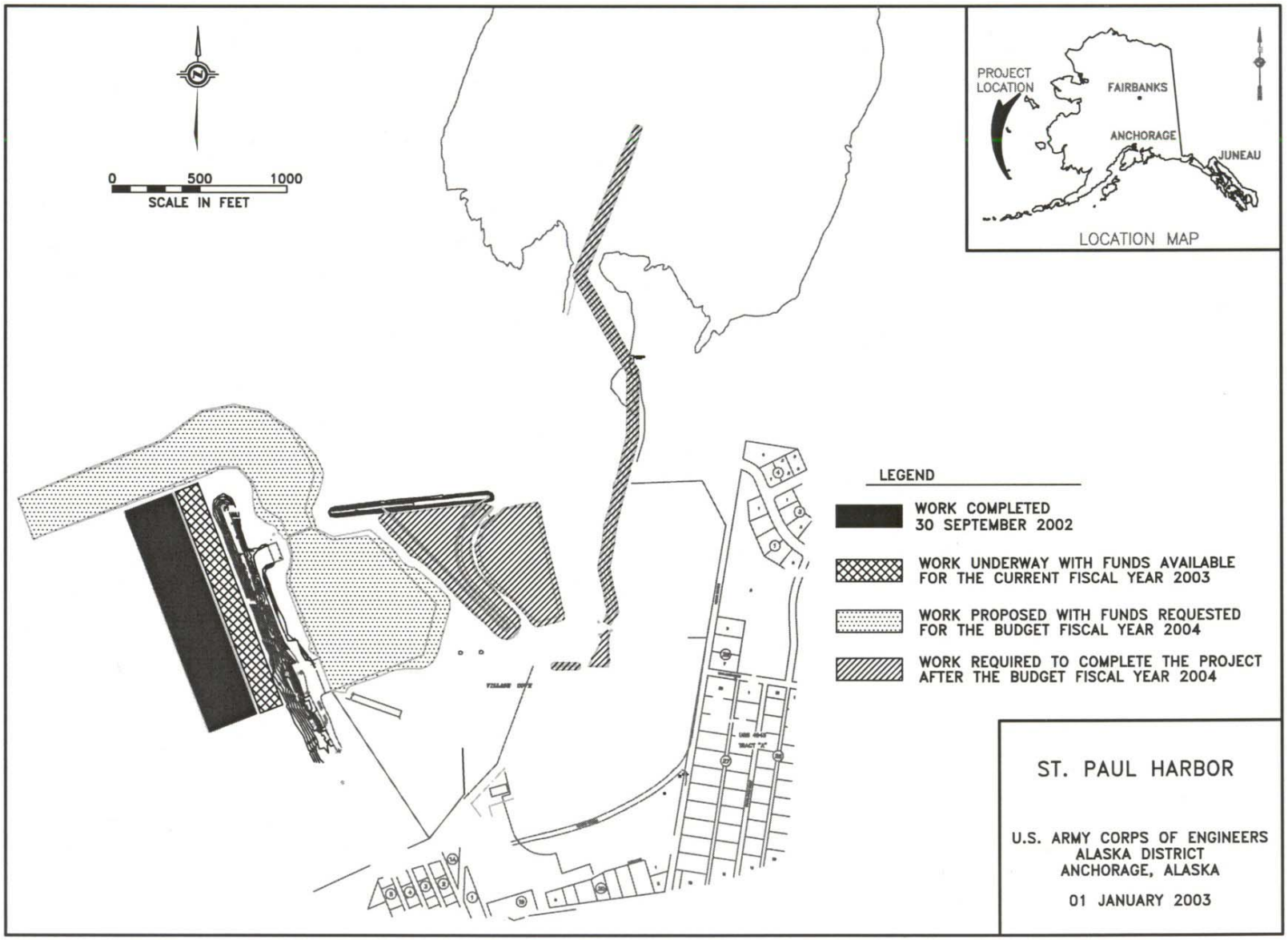
Item	Amount
Price Escalation on Construction Features	1,140,000
Authorized Modifications	13,714,000
Total	14,854,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT AND COMPLIANCE WITH CLEAN WATER ACT:

a. The FONSI was signed on 31 July 1996.

b. The provisions of Section 404 of the Clean Water Act were met with the submission of the EA including a Section 404 (b)(1) evaluation to Congress in July 1996.

OTHER INFORMATION:
Initial planning funds (PED) were received in FY 1996 and initial construction funds in FY 1998. Local service facilities estimated to cost $7,145,000 are also required for the project. Project modified to include small boat harbor in WRDA 99. The maximum project costs in accordance with Section 902 of the Water Resources Act of 1986, as amended, were $23 million for construction of offshore submerged breakwaters and deepening of the entrance channel and basins and $16 million for construction of a small boat harbor at the time the budget was prepared. Section 105 of the Fiscal Year 2003 Senate Energy and Water Development Appropriations Bill includes language raising the authorized costs of the St. Paul Harbor Project.


0 500 1000
SCALE IN FEET
PROJECT LOCATION
FAIRBANKS
ANCHORAGE
JUNEAU
LOCATION MAP
LEGEND
WORK COMPLETED 30 SEPTEMBER 2002
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2003
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2004
ST. PAUL HARBOR
U.S. ARMY CORPS OF ENGINEERS
ALASKA DISTRICT
ANCHORAGE, ALASKA
01 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Kikiaola Small Boat Harbor, Kauai, Hawaii (Continuing)

LOCATION: Kikiaola Harbor is located on the southwest coast of the island of Kauai, approximately 1 mile southeast of Kekaha and approximately 2 miles west of Waimea.

DESCRIPTION: The recommended plan consists of improvements to an existing State-owned facility initially constructed by the State of Hawaii in 1959. The plan includes removal of 150 feet from an existing outer east stub breakwater, removal and reconstruction of an 85-foot long inner east stub breakwater, modification of 220 feet of the existing west breakwater, modification of 820 feet of the existing east breakwater, dredging a new 700-foot long entrance channel to a depth of 11 feet and varying in width from 105 to 205 feet and a 320-foot long access channel to a depth of 7 feet and varying in width from 70 to 105 feet. The plan of improvements will allow berthing for 45 vessels.

AUTHORIZATION: Section 101 of the Rivers and Harbors Act of 1968 (Public Law 90-483).

REMAINING BENEFIT-REMAINING COST RATIO: 6.7 to 1 at 3-1/4 percent.

INITIAL BENEFIT-COST RATIO: 2.7 TO 1 at 3-1/4 percent.

TOTAL BENEFIT-COST RATIO: 2.5 to 1 at 3-1/4 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are based on a General Reevaluation Report approved in December 1998 at October 1997 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (CofE)	$6,089,000	Entire Project	0	TBD
Estimated Appropriation Requirement (USCG)	35,000			
Estimated Total Appropriation Requirement	$6,124,000			
Future Non-Federal Reimbursement	576,000			
Estimated Federal Cost (Ultimate)	$5,548,000			

SUMMARIZED FINANCIAL DATA (Continued)

Estimated Non-Federal Cost		$1,354,000	
Cash Contributions	$ 677,000		
Other Costs	101,000		
Reimbursements	$ 576,000		
Total Estimated Project Cost		$6,902,000	
			ACCUM PCT OF EST FED COST
Allocations to 30 September 2002		$1,465,000	
Conference Allowance for FY 2003		TBD	
Allocation for FY 2003		TBD	
Allocations through FY 2003		TBD	
Allocation Requested for FY 2004		3,633,000	
Programmed Balance to Complete after FY 2004		TBD	
Unprogrammed Balance to Complete after FY 2004		TBD	

PHYSICAL DATA

Entrance Channel:
- Length - 700 feet
- Width - 105 to 205 feet
- Depth - 11 feet

Modified Breakwater:
- Length - 1,040 feet

New Breakwater:
- Length - 85 feet

Access Channel:
- Length - 320 feet
- Width - 70 to 105 feet
- Depth - 7 feet

JUSTIFICATION: Vessels entering and leaving the existing State owned facility at Kikiaola Harbor continue to experience hazardous navigation conditions. The navigation problems at Kikiaola Harbor are directly attributed to the shallow depths in the entrance channel resulting in steep wave fronts and breaking wave conditions. In the past, numerous boats have sustained damages from the shallow depths and surge within the basin and channel. A recent survey of registered boaters on the island of Kauai revealed that about 35 percent of the respondents sustained damages averaging about $700 per incident to their vessels at Kikiaola Harbor. The conditions at Kikiaola Harbor are also responsible for the present frequency of usage of the harbor. Despite its proximity to productive fishing grounds and its strategic location for commercial passenger boat operators, Kikiaola Harbor is underutilized. The proposed modifications to existing protective structures and dredging of a deeper and wider entrance and access channels will reduce surge and wave actions within the channel and basin. Survey responses show that the proposed plan of improvements will attract commercial fishermen and commercial passenger boat operators and result in increased usage of the harbor. These users will launch an estimated 1,500 additional boat trips a year from the modified harbor. The harbor, when fully developed, will have a berthing area of 0.7 acre with a maximum capacity of 45 vessels and provide a safe transit and haven for all vessels. The average annual navigational benefits attributable to the project are currently estimated at $631,000.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Breakwater and Harbor Construction	$3,271,000
Engineering and Design	49,000
Construction Management	313,000
Total	$3,633,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 101,000	
Pay 10 percent of the costs allocated to general navigation facilities during construction.	677,000	
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights-of-way, relocations, and dredged or excavated material disposal areas provided for commercial navigation.	576,000	
Total Non-Federal Costs	$1,354,000	$18,000

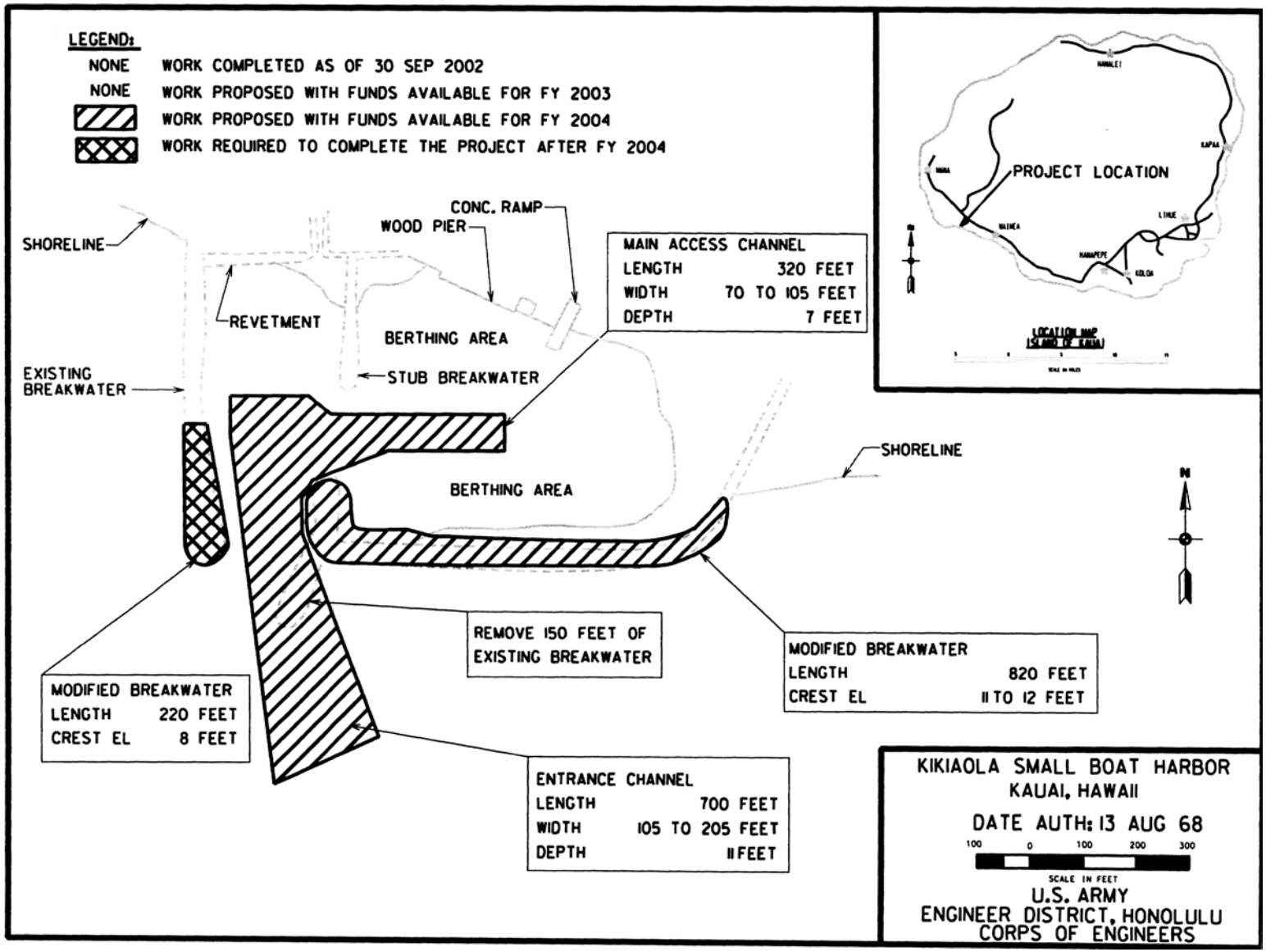
The non-Federal sponsor has agreed to make all required payments concurrently with project construction and reimburse its share of construction costs over a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of Hawaii. In May 1998, the State Department of Land and Natural Resources reaffirmed their willingness to share the total cost of project implementation. The project cooperation agreement is scheduled to be executed in fiscal year 2003. The State of Hawaii has requested that the State berthing area (a local service facility) be constructed in conjunction with the Federal project.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) cost estimate of $6,089,000 is an increase of $291,000 from the latest estimate ($5,798,000) presented to Congress (FY 2003) is attributed to price escalation on construction features.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment/Finding of No Significant Impact was signed on 3 June 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1994. The General Reevaluation Report was approved by HQUSACE in December 1998. A Limited Reevaluation Report to update the project economics is scheduled for completion in February 2003.


LEGEND:
NONE WORK COMPLETED AS OF 30 SEP 2002
NONE WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004
PROJECT LOCATION
LOCATION MAP
ISLAND OF KAUAI
SHORELINE
CONC. RAMP
WOOD PIER
REVETMENT
BERTHING AREA
STUB BREAKWATER
EXISTING BREAKWATER
MAIN ACCESS CHANNEL
LENGTH 320 FEET
WIDTH 70 TO 105 FEET
DEPTH 7 FEET
SHORELINE
BERTHING AREA
N
REMOVE 150 FEET OF EXISTING BREAKWATER
MODIFIED BREAKWATER
LENGTH 820 FEET
CREST EL 11 TO 12 FEET
MODIFIED BREAKWATER
LENGTH 220 FEET
CREST EL 8 FEET
ENTRANCE CHANNEL
LENGTH 700 FEET
WIDTH 105 TO 205 FEET
DEPTH 11 FEET
KIKIAOLA SMALL BOAT HARBOR
KAUAI, HAWAII
DATE AUTH: 13 AUG 68
100 0 100 200 300
SCALE IN FEET
U.S. ARMY
ENGINEER DISTRICT, HONOLULU
CORPS OF ENGINEERS

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Maalaea Harbor, Maui, Hawaii (Continuing)

LOCATION: Maalaea Bay is situated on the southwest coast of Maui, approximately 7 miles south of Wailuku, the county seat of Maui, State of Hawaii.

DESCRIPTION: The authorized plan consists of improvements to an existing State-owned facility initially constructed by the State of Hawaii in 1952. The plan includes a 620-foot long extension of the south breakwater, a new 610-foot long, 150- to 180-foot wide, 12- to 15-foot deep entrance channel, a 1.7-acre and 12-foot deep turning basin and a 720-foot long, 80-foot wide and an 8-foot deep access channel. The improvements will allow an increase in berthing capacity from the existing 93 mooring spaces to a maximum capacity of 220 vessels.

AUTHORIZATION: Section 101 of the Rivers and Harbors Act of 1968 (Public Law 90-483) in accordance with provisions contained in House Document No. 353, 90th Congress, 2nd Session, dated July 8, 1968.

REMAINING BENEFIT-REMAINING COST RATIO: 6.00 to 1 at 3-1/4 percent.

TOTAL BENEFIT-COST RATIO: 4.33 to 1 at 3-1/4 percent.

INITIAL BENEFIT-COST RATIO: 5.6 to 1 at 3-1/4 percent (FY 1990). The benefit-cost ratio is based on the project functioning independently.

BASIS OF BENEFIT-COST RATIO: Benefits are based on a reevaluation completed in February 1996 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2003)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement (CofE)	$14,423,000	Entire Project	0	TBD
Estimated Appropriation Requirement (USCG)	20,000			
Estimated Total Appropriation Requirement	$14,443,000			
Future Non-Federal Reimbursement	1,592,000			
Estimated Federal Cost (Ultimate)	$12,851,000			

SUMMARIZED FINANCIAL DATA (Continued)

				PHYSICAL DATA
Estimated Non-Federal Cost		$3,204,000		Entrance Channel:
Cash Contributions	$1,602,000			Length - 610 feet
Other Costs	10,000			Width - 150 to 180 feet
Reimbursements	$1,592,000			Depth - 12 to 15 feet
Total Estimated Project Cost		$16,055,000		Turning Basin:
			ACCUM PCT OF EST FED COST	Area - 1.7 acres
				Depth - 12 feet
Allocations to 30 September 2002		$4,206,000		Breakwater Extension
Conference Allowance for FY 2003		TBD		Length - 620 feet
Allocation for FY 2003		TBD		
Allocations through FY 2003		TBD		Access Channel:
Allocation Requested for FY 2004		191,000		Length - 720 feet
Programmed Balance to Complete after 2004		TBD		Width - 80 feet
Unprogrammed Balance to Complete after 2004		TBD		Depth - 8 feet

JUSTIFICATION: Vessels moored in the existing State-owned facility at Maalaea Harbor have experienced surge and wave action from ocean swells generated by storms occurring in the southern hemisphere. The existing entrance channel is open to southerly swells and storm waves that directly enter the harbor basin causing damages to the vessels moored inside. The surge action renders much of the harbor basin unusable for safe mooring of vessels. The enlargement, deepening and the relocation of the entrance channel and extension of the existing south breakwater would reduce surge and wave action within the basin. These improvements would also increase the usable harbor basin area allowing Maui District boaters currently awaiting slips at Maalaea to safely wet-store their vessels at the harbor and provide safer navigation conditions for vessels using the facility. The harbor, when fully developed, would have a basin area of 13.5 acres with a maximum capacity of approximately 220 boats. Annual benefits for the project are summarized below:

Annual Benefits	Amount
Damage Reduction	$ 326,000
Commercial Fishing	96,000
Commercial Navigation	1,985,000
Total	$2,407,000

FISCAL YEAR 2004: The requested amount will be applied as follows:

Breakwater Construction	$56,000
Harbor Dredging	12,000
Mitigation Features	18,000
Engineering and Design	100,000
Construction Management	5,000
Total	$191,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 10,000	
Pay 10 percent of the costs allocated to general navigation facilities during construction.	1,602,000	
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights-of-way, relocations, and dredged or excavated material disposal areas provided for commercial navigation.	1,592,000	
Total Non-Federal Costs	$3,204,000	$0

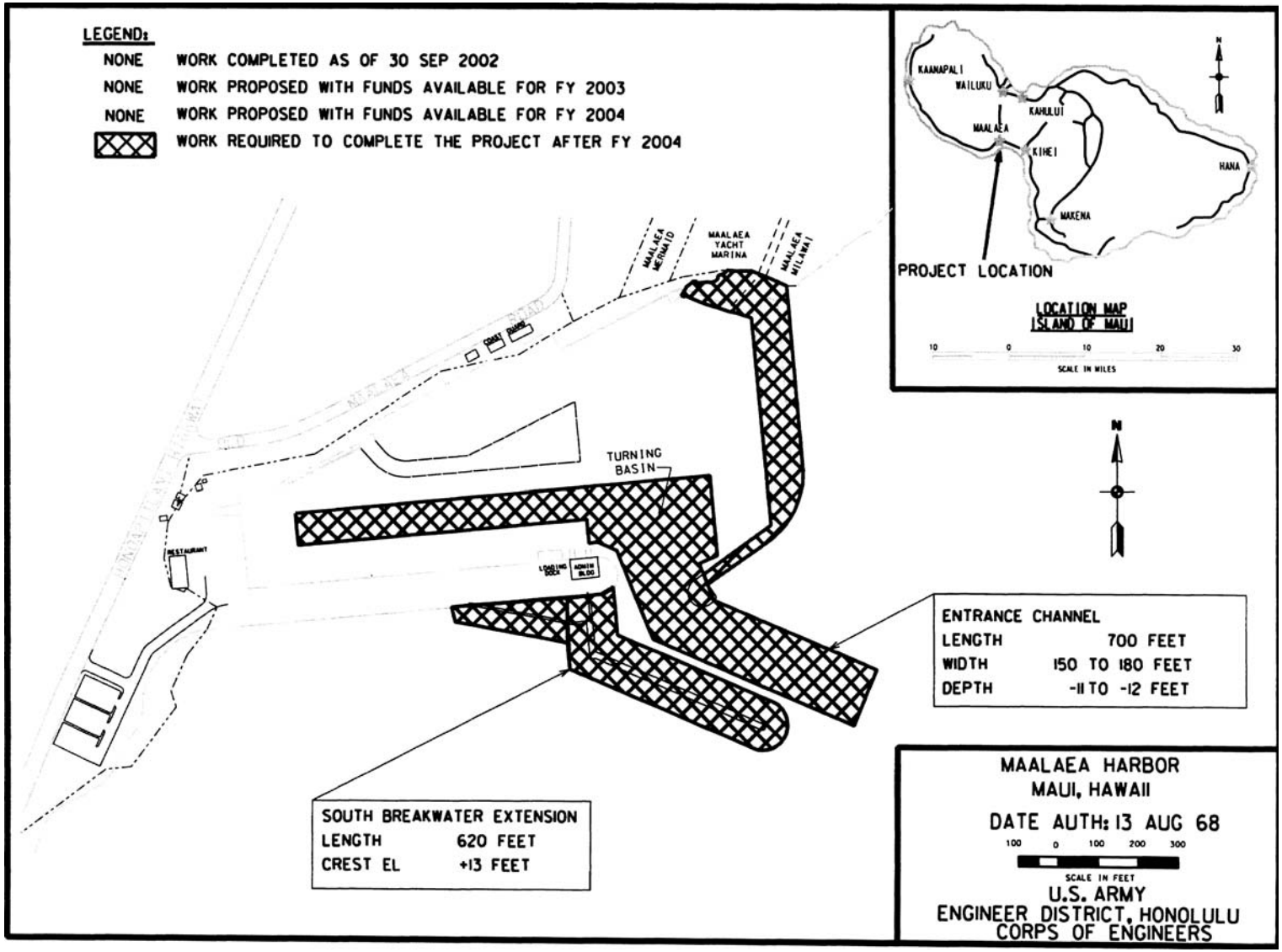
The non-Federal sponsor has agreed to make all required payments concurrently with project construction and reimburse its share of construction costs over a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of Hawaii. The entire local share of the project first costs was appropriated by the 1989 State of Hawaii Legislature for the Harbors Division Capital Improvements Program (CIP) for the fiscal 1990-1991 biennium. The funds were transferred to the Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DLNR-DBOR) on April 15, 1997 when the designated point of contact for the State was moved to DLNR-DBOR from the Harbors Division. Because of the delays in finalizing the design, caused by environmental concerns, the State of Hawaii has rescinded their funding. The funds will be reinstated prior to the construction award.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) cost estimate of $14,423,000 is an increase of $2,539,000 from the last estimate ($11,884,000) presented to Congress (FY 2003). This addition covers the cost of the mitigation features such as establishing coral colonies in the abandoned channel.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with the EPA on April 28, 1980. A supplement to the EIS was completed in July 1994. The draft second supplement to the EIS was completed and circulated May 1998. Numerous public and agency comments and concerns were received regarding the project's impacts on coral reef and surfing resources. These concerns are currently being addressed and include an independent review of alternatives and physical model studies to evaluate the impacts of alternative project features on surfing sites and navigability.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1979. Funds to initiate construction were appropriated in FY 1990. Model studies completed in December 2001 provided information on all alternatives and impacts on the Maalaea Pipeline surfing site.


LEGEND:
NONE WORK COMPLETED AS OF 30 SEP 2002
NONE WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
NONE WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2004
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004
KAANAPALI
WAILUKU
KAHULUI
MAALAEA
KIHEI
HANA
MAKENA
PROJECT LOCATION
LOCATION MAP
ISLAND OF MAUI
SCALE IN MILES
MAALAEA YACHT MARINA
MAALAEA MERMAID
MAALAEA MILAWAI
TURNING BASIN
RESTAURANT
LOADING DOCK
ADMIN BLDG
ENTRANCE CHANNEL
LENGTH 700 FEET
WIDTH 150 TO 180 FEET
DEPTH -11 TO -12 FEET
SOUTH BREAKWATER EXTENSION
LENGTH 620 FEET
CREST EL +13 FEET
MAALAEA HARBOR
MAUI, HAWAII
DATE AUTH: 13 AUG 68
SCALE IN FEET
U.S. ARMY
ENGINEER DISTRICT, HONOLULU
CORPS OF ENGINEERS

1. NAVIGATION

a. Channels and Harbors. The program request of $6,091,000 provides for operations and maintenance of channels and harbor projects. Annual requirements are for operation and maintenance of project facilities; and labor, supplies and materials.

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	REASON FOR CHANGE AND MAJOR MAINTENANCE ITEMS 1. Reason for change in Operations from FY 2003 to FY 2004 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $1,000,000)
Alaska			
Anchorage Harbor	3,616,000	2,969,000	
	(110,000)	(112,000)	1. Shoaling study
	(3,506,000)	(2,857,000)	2. Annual dredging of the Port of Anchorage; Qty decrease
Bar Pt. Harbor (Ketchikan)	500,000	0	
	(0)	(0)	1. None
	(500,000)	(0)	2. None
Cordova Small Boat Harbor	0	400,000	
	(0)	(0)	1. None
	(0)	(400,000)	2. None
Dillingham Small Boat Harbor	459,000	906,000	
	(0)	(150,000)	1. Prepare Dredged Material Management Plan
	(459,000)	(756,000)	2. None
Homer Harbor	363,000	370,000	
	(125,000)	(125,000)	1. None
	(238,000)	(245,000)	2. None

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	REASON FOR CHANGE AND MAJOR MAINTENANCE ITEMS 1. Reason for change in Operations from FY 2003 to FY 2004 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $1,000,000)
1. NAVIGATION (Cont.)			
Alaska			
Naknek River	215,000	0	
	(0)	(0)	1. None
	(215,000)	(0)	2. None
Ninilchik Harbor	232,000	239,000	
	(0)	(0)	1. None
	(232,000)	(239,000)	2. None
Nome Harbor	410,000	285,000	
	(0)	(0)	1. None
	(410,000)	(285,000)	2. None
Saint Paul Harbor	75,000	0	
	(0)	(0)	1. None
	(75,000)	(0)	2. None

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	REASON FOR CHANGE AND MAJOR MAINTENANCE ITEMS 1. Reason for change in Operations from FY 2003 to FY 2004 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $1,000,000)
1. Navigation Continued Hawaii			
Barbers Point Harbor	354,000 (154,000) (200,000)	176,000 (176,000) (0)	 1. Increase costs for operational maintenance contracts 2. Upgrade work completed in FY03.
Port Allen Harbor	0 (0) (0)	90,000 (0) (90,000)	 1. 2. Prepare P&S for breakwater repair
Manele Small Boat Harbor	0 (0) (0)	656,000 (0) (656,000)	 1. 2. Complete maintenance dredging
TOTAL - NAVIGATION	6,224,000 (389,000) (5,835,000)	6,091,000 (563,000) (5,528,000)	

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	REASON FOR CHANGE AND MAJOR MAINTENANCE ITEMS 1. Reason for change in Operations from FY 2003 to FY 2004 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $1,000,000)
2. FLOOD CONTROL			
a. Reservoirs:			
The program request of $3,259,000 provides for the operation and maintenance of one flood control reservoir in Alaska. Annual requirements are for operation and ordinary maintenance of project facilities; labor, supplies, materials, and parts required for daily functions; and periodic maintenance, repairs, and replacements.			
Alaska			
Chena River Lakes	2,889,000 (1,264,000) (1,625,000)	3,259,000 (1,366,000) (1,893,000)	1. None 2. Resurface portion of Laurance Road (only access to project)
TOTAL - Reservoirs	2,889,000 (1,264,000) (1,625,000)	3,259,000 (1,366,000) (1,893,000)	

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	REASON FOR CHANGE AND MAJOR MAINTENANCE ITEMS 1. Reason for change in Operations from FY 2003 to FY 2004 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $1,000,000)

b. Channel Improvements, Inspection and Miscellaneous. The program request of $232,000 provides for salaries and the annual inspection of flood control projects, shore protection projects and navigation breakwaters.

2. Flood Control Continued

Alaska			
Inspection of Completed Works	40,000	41,000	
	(40,000)	(41,000)	1. None
	(0)	(0)	2. None
Hawaii			
Inspection of Completed Works	275,000	191,000	
	(275,000)	(191,000)	1. Hydraulic reanalysis completed in FY03
	(0)	(0)	2. None
Total Channel Improvements Inspection and Misc.	315,000	232,000	
	(315,000)	(232,000)	
	(0)	(0)	
TOTAL - FLOOD CONTROL	3,204,000	3,491,000	
	(1,579,000)	(1,598,000)	
	(1,625,000)	(1,893,000)	

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	REASON FOR CHANGE AND MAJOR MAINTENANCE ITEMS 1. Reason for change in Operations from FY 2003 to FY 2004 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $1,000,000)

3. MULTIPLE PURPOSE POWER PROJECTS: None

4. PROTECTION OF NAVIGATION

a. Inspection of Completed Works. The program request of $1,018,000 provides for conducting project condition surveys of harbors where maintenance is not scheduled in the budget year and also to conduct an ocean disposal site study to assess the environmental impact of dredged material disposal.

Alaska			
Project Condition Surveys	543,000	533,000	
	(543,000)	(533,000)	1. None
	(0)	(0)	2. None
Hawaii			
Project Condition Surveys	544,000	485,000	
	(544,000)	(485,000)	1. Fewer projects scheduled for survey in FY04
	(0)	(0)	2. None
TOTAL - PROTECTION OF NAVIGATION	1,087,000	1,018,000	
	(1,087,000)	(1,018,000)	
	(0)	(0)	

State/Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	REASON FOR CHANGE AND MAJOR MAINTENANCE ITEMS 1. Reason for change in Operations from FY 2003 to FY 2004 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $1,000,000)
GRAND TOTAL - PACIFIC OCEAN DIVISION			
	10,515,000	10,600,000	
	(3,055,000)	(3,179,000)	
	(7,460,000)	(7,421,000)	